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February 6, 2014

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EPA CONTRACT NUMBER EP-W-10-033
TASK ORDER NUMBER 3019
QUALITY ASSURANCE SUPPORT FOR THE LIBBY ASBESTOS SITE

Dear Ms. Zinner:

Enclosed please find the Fourth Quarter 2013 Quarterly QA Report. This report is a deliverable under Task 6 of Task Order 3019.

If you have any questions, please feel free to contact me.

Sincerely,

Timothy L. Vonnahme
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cc: Administrative Contracting Officer (letter only)
Audit Group Files





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TECHNICAL MEMORANDUM

TO: Dania Zinner, USEPA Region 8

FROM: Michael Lenkauskas, CB&I Federal Services, LLC

DATE: January 30, 2014

SUBJECT: Fourth Quarter 2013 Quarterly QA Report – Task Orders 2019 and 3019

This technical memorandum represents the Fourth Quarter 2013 Quarterly QA Report for activities performed under Task Orders 2019 and 3019, *Quality Assurance Support for the Libby Asbestos Site*. It includes, by task and QA element, a summary of the QA activities completed for the period of October 1, 2013 to December 31, 2013. The QA elements addressed in this quarterly report are consistent with Tasks 1 through 9 of Task Orders 2019 and 3019, and represent work performed by CB&I Federal Services, LLC under its Quality Assurance Technical Support contract EP-W-10-033.

Task 1 – Review of Existing Quality Documents

QATS continued to support the development and/or revision of project-specific laboratory modifications. Table 1 provides the status of the laboratory modifications reviewed during the quarter and as of the last monthly conference call held on November 20, 2013. Following Table 1 is a summary description of each laboratory modification.

Table 1 – Laboratory Modifications Reviewed During the Quarter

Lab Mod	Description Summary	Status	Effective Date
LB-000029	QATS revised the modification to reflect changes to QC frequencies, recount criteria, tracking of EDS results (NaK), and the inter-laboratory process.	EPA Review	NA
LB-000093	This was a laboratory sample-specific modification reviewed by QATS to document the R-qualification of four transmission electron microscopy (TEM) analyses for two air samples.	EPA Approved	12/05/2013
LB-000094	This was a laboratory-specific modification which was reviewed by QATS to ensure proper action was taken to correct the described EDD discrepancies.	EPA Approved	12/05/2013
LB-000095	This is a laboratory sample-specific modification to document the deviation from the Libby-specific SOP for the Indirect Preparation of Air and Dust Samples for TEM Analysis (EPA-Libby-08).	EPA Review	NA

- Laboratory Modification LB-000029D – This modification was revised to increase the frequency at which inter-laboratory analyses are performed from 0.5% to 1% of samples analyzed; change the recount concordance criteria for structure length; add



requirements for tracking the detection of sodium (Na) and potassium (K) during elemental analysis by EDS; and document changes to the inter-laboratory process. QATS completed a technical review of the document. EPA review and approval is pending.

- Laboratory Modification LB-000093 – This is a laboratory sample-specific modification to document the R-qualification of four transmission electron microscopy (TEM) analyses for two air samples collected as part of the 2010 residential activity-based sampling (ABS) program for Operable Unit 4. QATS completed a technical review of the document, and it was approved by EPA on 12/5/2013.
- Laboratory Modification LB-000094 – This is a laboratory-specific modification to document the revision of the specified PLM EDDs to include the associated QC analyses, which were not entered into the original EDD. QATS completed a technical review of the document, and it was approved by EPA on 12/5/2013.
- Laboratory Modification LB-000095 – This is a laboratory sample-specific modification to document the deviation from the Libby-specific SOP for the Indirect Preparation of Air and Dust Samples for TEM Analysis (EPA-Libby-08). Due to the deviation, a potential for low-bias results exists and all associated results will be qualified as “J” or “UJ.” QATS completed a technical review of the document. EPA review and approval is pending.

No standard operating procedures (SOPs) were evaluated during the quarter.

Task 2 – Libby Amphibole Laboratory-specific Mentoring Program Support

QATS participated in two Libby Laboratory Conference Calls during the quarter, which are summarized below by date and topics discussed:

10/23/2013 Conference Call Topics:

- Libby Laboratory Modification Status Update
- eRoom Resources
- SAP Summaries
- Timely Reporting of QC Analytical Results
- TEM QC Selection
- TEM Inter-laboratory Follow-up
- PLM-GRAV QC Requirements
- PLM-VE Analysis and QC

11/20/2013 Conference Call Topics:

- Libby Laboratory Modification Status Update
- Deliverable Contractual Requirements
- Libby COC Documentation SOP
- New PLM 400 Point Count EDD
- New Test Report and EDD/Test Report Delivery Requirements
- PLM Practices
- Reporting of PCM 7400 and PLM 9002 QC Results
- Electronic Bench Sheets for TEM and PLM
- Example EDS Spectra Needed for Lab Call Discussions

There was no conference call scheduled for December. For each conference call, QATS provided input to each discussion topic, compiled notes, and distributed these notes as minutes to the TOPO.

As directed by EPA, QATS staff provided technical support for the retraining (mentoring) of the TEM analysts at the EMSL Analytical Laboratory in Libby, MT. This laboratory had recently come under scrutiny for the issues described in the Technical Memo submitted to EPA on 9/20/2013. Efforts included the selection of samples for a TEM inter-laboratory study to assess the effectiveness of TEM training provided by ESAT personnel on September 25-26, 2013.

Task 3 – Track and Coordinate Quality Control (QC) Sample Programs

The following laboratory QC sample program support was provided by QATS during the fourth quarter of 2013:

- Entry of quarterly laboratory 2013 PLM and TEM calibration data was initiated by QATS staff into spreadsheets to assist in the asbestos data validation process. Calibration data entry will continue during the next quarter as additional calibration data are received from the asbestos laboratories.
- QATS initiated development of a report which will summarize the results of the PLM inter-laboratory study for select samples analyzed by PLM-VE and PLM-GRAV between 1/01/2013 and 6/31/2013.

QATS participated in six Scribe weekly conference calls held during the quarter on the following dates: 10/16/2013, 10/23/2013, 10/30/2013, 11/13/2013, 12/04/2013, and 12/18/2013. Topics discussed on these calls included:

- Significant structural changes to the database
- Identified discrepancies and suggested corrections or adjustments
- Overall improvements to user interaction

Task 4 – Asbestos Sample Data Validation

No activities were assigned during the quarter.

Task 5 – Asbestos Laboratory On-site Audit Support

QATS provided support to one asbestos on-site laboratory audit scheduled by EPA during the quarter. The audit of EMSL Analytical in Cinnaaminson, NJ was performed on 10/08/2013. This on-site audit was a one-day audit focused on evaluating the corrective actions applied to deficiencies identified during the 2012 audit, and to discuss with the laboratory issues observed from QC analysis and validation activities.

No significant findings were observed during the EMSL-NJ on-site audit that warranted immediate corrective actions. EMSL-NJ provided acceptable corrective actions to findings from the previous on-site audit.

Asbestos on-site audit reports for the following asbestos laboratory on-site audits conducted in 2013 were submitted to EPA on 11/14/2013:

- EMSL, CO - 05/07/2013
- ESAT Region 8, CO - 05/08/2013
- Reservoirs, CO - 05/09/2013
- EMSL, NY - 05/22/2013
- SPF Troy, MT - 07/11/2013
- EMSL, MT - 07/19/2013
- Hygeia, CA - 08/22/2013
- EMSL, NJ - 10/08/2013

The EPA TOPO approved all of the above reports on 11/14/2013, and directed QATS to finalize and submit the reports to EPA. EPA directed each laboratory/SPF to provide a response to their on-site audit report indicating the corrective action taken or proposed for each of the deficiencies identified. The following six laboratory responses (including receipt date) to the asbestos on-site audit reports were received during the quarter:

- ESAT, CO - 12/19/2013
- Hygeia, CA - 12/19/2013
- EMSL, CO - 12/20/2013
- EMSL, NY - 12/20/2013
- EMSL, MT - 12/20/2013
- EMSL, NJ - 12/20/2013

Laboratory responses from Reservoirs and SPF Troy were not received by the end of the quarter; however, QATS will follow-up with these laboratories to ensure their responses are received. During the next quarter, QATS will review the laboratory responses, generate EPA Resolution Reports, and submit them to EPA for their review and resolution. When approved the EPA Resolution Reports will be forwarded to the laboratories.

Early in the next quarter, a 2014 proposed on-site audit schedule will be developed and submitted to EPA and the laboratories for review.

Task 6 – Provide Quarterly Report as a Memorandum

The Third (3rd) Quarter 2013 Quarterly QA Report was submitted on 10/31/2013.

Task 7 – Participate in Quarterly Laboratory Conference Calls

QATS participated in three laboratory conference calls during the quarter:

- 12/04/2013 – The following changes to laboratory modification LB-000029 were discussed: 1) increase the percentage of TEM inter-laboratories from 0.5% to 1%; 2) loosening of the structure length discordance criteria, 3) inclusion of requirements to track and tabulate the presence and absence of Na and K observed during EDS analysis, and 4) providing a more detailed explanation of inter-laboratory process and reporting requirements. QATS subsequently incorporated these changes into the modification.

- 12/11/2013 – Mentoring of the EMSL laboratory in Denver, CO was discussed due to the loss of key personnel in both the PLM and TEM areas. Because of the importance of having analysts experienced in the analysis of Libby samples, the laboratory will have to go through the mentoring process prior to becoming eligible to receive samples from Libby Superfund Site operable units. Mentoring will include the acceptable analysis of PLM and TEM inter-laboratory samples, and participation in an on-site audit to be conducted by EPA and QATS, which is currently scheduled for May 8-9, 2014.
- 12/18/2013 – Potential changes to the PLM-VE and PLM-GRAV analytical procedures were discussed, which are necessary to ensure better consistency among the participating laboratories. During the call it was decided that a temporary modification (mod) would be developed for a special PLM inter-laboratory study to be conducted in January 2014. This mod will standardize the areas determined to be inconsistent between the participating laboratories. Upon completion of the study, the results will be compared to past inter-laboratory results to determine the effect of the temporary mods on PLM-VE inter-laboratory results. The results of this study will be used to determine what permanent changes will be made to the PLM-VE procedure.

Task 8 – Provide Annual Summary Report of all QA Activities Performed During the Year

EPA and CDM Smith's comments to the final draft of the Annual QA/QC Summary Report (2010-2012) were reviewed and incorporated into the report. A final version of the Annual QA/QC Summary Report (2010-2012) was submitted to EPA on 11/04/2013.

Task 9 – Modify Existing Libby Site-wide QAPP

QATS is in the process of revising the Site-wide QARD to incorporate the latest comments received from CDM Smith and any additional changes received to procedures, modifications, etc., since the draft QARD was submitted to EPA on 03/06/2013. QATS will submit a final update to the site-wide QARD during the next quarter.

Task Order 2019 was completed on 11/14/2013. The new Task Order 3019 was received from EPA on 10/29/2013. QATS submitted a technical and cost proposal for TO 3019 for the 2-year award term period on 11/07/2013, which was approved by EPA on 11/13/2013. Task Order 3019 modification 001 was received from EPA on 11/27/2013 providing initial funding of \$173,693.96. The new funding total is \$173,693.96 and the current cost ceiling is \$347,387.92.